

assessed. Data extraction will be carried out using a structured framework established prior to the review.

**Results/Current Study Status:** The final stage of the full-text review is currently underway. The following outcomes will be presented: therapy-related factors influencing medication non-adherence, as identified in the most recent scientific literature.

**Conclusion/Expected Outcomes:** The study will provide evidence on therapy-related factors affecting medication adherence. Consequently, outcomes of this review could set the foundations for the development of future medication adherence management interventions targeting these factors.

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### Intervention mapping-based development of a pharmacist-led intervention to discontinue chronic antidepressant use

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**Background:** In significant numbers of patients the in principle finite treatment of depression with an antidepressant (AD) results in chronic AD use. Discontinuation, however, is a complex and often long-term process since patients not only have to be made aware of their chronic AD use and its consequences but it also requires drawing up patient-tailored AD discontinuation schedules. Although a multidisciplinary guideline is available, it remains challenging for many HCPs to perform an AD discontinuation intervention. This study describes the systematic development of a pharmacist-led intervention to improve AD discontinuation care.

**Purpose (research question):** To develop an intervention including a systematic workflow for pharmacists, in collaboration with general GPs and psychiatrists, to support patients to discontinue chronic AD use.

**Method/study design:** Intervention development was guided by the Intervention Mapping approach. First, a scoping review was performed to assess the determinants of the challenges, i.e. the needs of patients, pharmacists, GPs/psychiatrists and associated nurse-practitioners. Second, intervention objectives were discussed within an expert group. Step three concluded the design of program content tools and step four the design of practical tools.

**Findings:** Major barriers to starting an intervention for AD discontinuation largely consist of poorly defined responsibilities between the different disciplines of HCPs with regard to the identification, invitation and support of patients. They can be addressed by providing tools that can facilitate HCPs in performing the intervention and developing a model collaboration protocol.

The systematic workflow for pharmacists relates to the invitation and support of patients with chronic AD use. For their identification, a protocol for a systematic search in the pharmacy information system was developed. For inviting patients a standardized letter and a protocol for subsequent telephone conversations were developed. Patient support materials include: a topic list for the intake and follow-up consultations, a relapse prevention plan, conversation techniques and a set of basic AD discontinuation schedules. To support the implementation, promotion materials including a flyer and a poster as well as training including patient cases were designed.

The HCP collaboration protocol describes shared patient counselling, responsibilities, the allocation of tasks, intercollegiate communication and support activities in case of withdrawal symptoms or relapse.

**Conclusion:** A pharmacist-led intervention was developed to initiate and complete the process of AD discontinuation. Performing the intervention is facilitated by several pharmacy support tools and a protocol for HCP collaboration. The next step is to test the feasibility of the intervention in daily practice.

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### The geriatric patient: A study on the analysis of potentially inappropriate prescriptions.

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**BACKGROUND:** The development of adequation tools for drug treatment optimization is a critical element in the clinical practice to prevent Potentially Inappropriate Prescriptions (PIPs), enhance therapeutic adherence and improve the quality of life for patients aged 65 and older.

**PURPOSE:** To analyse the prescribed medication of polymedicated geriatric patients to detect the possible existence of PIPs.

**METHOD:** A retrospective observational study has been carried out on the medication plans of polypharmacy patients aged 65 or older who attend a community pharmacy in the Metropolitan Area of Barcelona. STOPP/START V3 criteria were employed to systematically analyse the prescribed medications of these patients. This explicit methodology offers a comprehensive list of potentially inappropriate medications (STOPP) as well as potentially omitted treatments (START). The most recent version comprises 133 criteria for medication overuse (STOPP) and 55 for underuse (START).

**FINDINGS:** 32 medication plans, including a total of 137 medications, were collected. According to the first level of the Anatomical Therapeutic Chemical (ATC) classification, medications related to the cardiovascular system (C), digestive system and metabolism (A), and nervous system (N), accounting for 32.45%, 24.83%, and 14.57% respectively, were the most prevalent in the sample group.

The analysis of the medication plans led to the identification of 11 potential STOPP criteria, as well as the suggestion of a possible START criterion.

Some of the possible STOPP criteria detected were: the prescriptions of benzodiazepines for more than 4 weeks; proton pump inhibitors for peptic ulcer disease or uncomplicated peptic esophagitis at full therapeutic doses for more than eight weeks; antimuscarinics for the treatment of overactive bladder or urge urinary incontinence; and the concomitant use of two or more drugs with antimuscarinic/anticholinergic properties. Besides, the possible START criteria detected was the prescription of selective serotonin reuptake inhibitors for severe, persistent anxiety that interferes with functional independence and quality of life.

**CONCLUSION:** The study highlights a critical need: the optimization of the healthcare model in terms of medical care and prescription practices, specifically tailored to the management of polymedicated patients over the age of 65, always with the goal of preventing causes of frailty and iatrogenesis and reducing healthcare costs.

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### Clinical Pharmacist Consulting on HPV Vaccination: A Model of Good Practice Initiative

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**Background and importance:** Human papillomavirus (HPV) is a common virus that can lead to various cancers, most notably cervical cancer. The 9-valent HPV vaccine is one of the most effective tools in preventing HPV-related cancers.(1) However, vaccine hesitancy, lack of patient knowledge, and concerns about safety can limit vaccination uptake. Hospital pharmacists play a crucial role in addressing these barriers by providing accurate, evidence-based information to patients.

**Aim and objectives:** To present and evaluate the patient-centered consultations conducted by hospital pharmacists regarding the 9-valent HPV vaccine, emphasizing patient education, safety, and satisfaction.

**Material and methods:** Data from the electronic hospital database regarding the consultations has been extracted and assessed to evaluate the effectiveness of direct-to-patient services provided by hospital pharmacists with clinical pharmacy specialization, focusing on the optimized patient perception of the vaccine's safety and efficacy profile.

**Results:** An autonomous consulting service was developed within the hospital, enabling patients to arrange consultations with hospital pharmacists. The consultations encompassed an in-depth examination of the 9-valent HPV vaccine's mechanism of action, potential adverse medication reactions, allergic responses, and requisite post-vaccination follow-up protocols. Consultations were provided at no cost, with pharmacists delivering expert advice on immunization, resolving patient inquiries, and ensuring appropriate follow-up. Patient engagement and contentment were assessed, and feedback was utilized to appraise the program's efficacy. The project generated significant interest among patients, with numerous individuals utilizing the opportunity to consult a hospital pharmacist. A reduction in vaccination-related medication mistakes was noted, resulting in safer vaccine administration. Moreover, patient satisfaction was markedly improved, with individuals indicating an elevated sense of confidence and understanding concerning the HPV vaccine. This subsequently resulted in elevated immunization rates.

**Conclusion and relevance:** This pharmacist-led consultation project has demonstrated efficacy in enhancing HPV vaccination rates, patient education, and overall satisfaction. The program's success indicates that analogous pharmacist-led consultations may be implemented in other vaccination initiatives, thereby improving vaccine uptake, minimizing errors, and augmenting patient care in diverse immunization settings.

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### Counseling in Bulgarian pharmacies –Expectation vs Perception

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Pharmacists are crucial in delivering high-quality pharmaceutical care and improving patients' health literacy. Consultation is a process of interaction between the pharmacist and the patient, based on trust, aiming to ensure the proper understanding and use of prescribed medications.

Our study aims to explore patients' experience with counseling in community pharmacies and pharmacists' self-assessment of their counseling capabilities. Two anonymous studies were conducted among patients and community pharmacists. Each questionnaire consisted of 13 questions focused on the consultation process in pharmacies.

The results show that most patients (80%) express satisfaction with the consultations received, reflecting the pharmacists' competence in addressing patient needs and concerns. Additionally, 93% of patients report trusting their pharmacists, which is crucial for fostering a collaborative relationship that enhances medication adherence. Notably, a segment of patients (20%) feels uncertain about the usefulness of their consultations, indicating a need for pharmacists to improve their communication strategies to ensure clarity and understanding. Moreover, while 87% of pharmacists self-assess as competent in delivering consultations, many acknowledge the necessity for further training, particularly in communication skills. This highlights a discrepancy between self-perception and patient experience, suggesting that pharmacists may benefit from targeted professional development programs focused on enhancing interpersonal skills and patient engagement techniques. The desire for dedicated consultation spaces within pharmacies, expressed by both pharmacists and patients, points to the need for an environment conducive to private and effective communication. Such changes could facilitate better consultations, allowing pharmacists to address patient concerns more thoroughly and confidentially.

In conclusion, the effectiveness of consultations between pharmacists and patients is critical to improving health outcomes. By bridging the gap between patient expectations and pharmacists' capabilities, the profession can continue to advance its role as a trusted healthcare provider.

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### Evaluation of drug-related problems and pharmacist interventions in the management of diabetic patients

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**Background:** Drug-related problems (DRPs) pose a significant challenge in the diabetes management, a chronic condition requiring complex therapeutic regimens. These issues can compromise treatment outcomes, impacting both therapy efficacy and patient safety, and potentially leading to long-term health complications. Addressing DRPs involves identifying, resolving, and preventing medication-related issues through systematic pharmaceutical care. Pharmacists play a crucial role in optimizing treatment outcomes by implementing interventions and addressing gaps in patient care.

**Purpose:** This study aimed to document and analyze the prevalence, types, and causes of drug-related problems (DRPs) among diabetic patients receiving standardized pharmaceutical care. It focused on evaluating pharmacist-led interventions while also providing insights into the challenges and opportunities for enhancing diabetes management through targeted pharmaceutical services.

**Method:** This research forms part of an ongoing project focused on counseling and pharmaceutical care for diabetic patients. Data from a total of 827 diabetic patients were systematically collected and documented using the OpenClinica software, ensuring accurate and structured data management. Drug-related problems (DRPs) were reported for 567 patients. The identification and categorization of DRPs were performed using the Serbian validated version of the Pharmaceutical Care Network Europe (PCNE) Classification for DRPs, version 9.0. Pharmacists utilized standardized checklists to gather comprehensive information on DRPs, with data collection conducted up to July 2024. Targeted interventions were implemented to address identified issues, and therapy outcomes were subsequently monitored. Descriptive statistical methods were applied to evaluate the prevalence and resolution rates of DRPs, as well as to assess the distribution and effectiveness of intervention strategies, providing a detailed analysis of the role of pharmacists in optimizing diabetes care.

**Findings:** In total of 567 diabetic patients DRPs have been reported. The majority were therapy efficacy problems, 76.5%, and only 6.2% safety problems. Around a third of efficacy problem were completely resolved, 37.1%, while 41.9% were partly solved. When the intervention was at the pre-scriber level only, in 52.4% of cases the problem was completely resolved, and in 19% of cases partly resolved. When the intervention was at the patient level only, in 37.5% of cases the problem was completely resolved, and in 40.3% of cases partly resolved. Majority of interventions were made only at the patient level, 56.3%, while only 12.2% at the proscribe level only.

**Conclusion:** The results clearly show that the interprofessional collaboration between pharmacists and prescribers in DRPs resolving brings the best healthcare outputs. However, this collaboration related to DRP is still very limited.

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### Medicine shortages in public pharmacies and the provision of pharmaceutical care services

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**Background:** A reliable drug supply chain is the necessary prerequisite for effective pharmaceutical care services. However, pharmacists face, on a daily level, shortages of medicines and accompanying difficulties in providing optimal pharmaceutical care.